

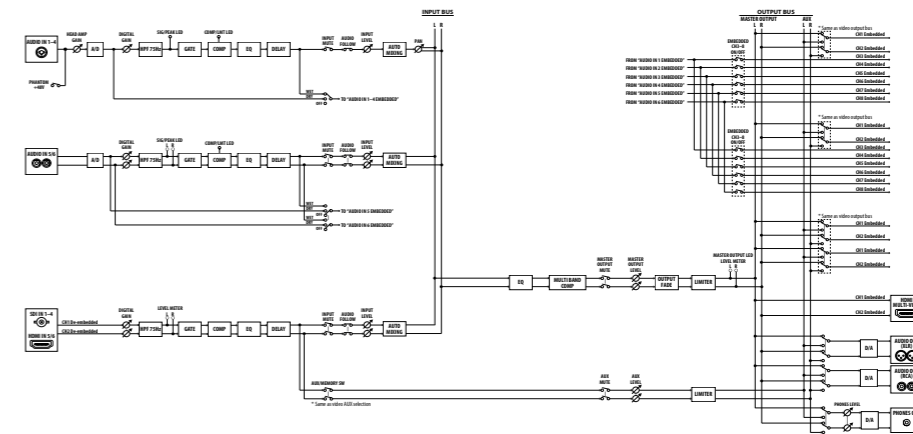
## Plug-n-Play Production Switcher with Audio for Live Event and Streaming

- 4 SDI Inputs (with de-interlacer)
- 2 HDMI Inputs (scaled)
- 1 RGB shared with HDMI input 6 (scaled)
- 2 SDI Outputs – Assignable to PGM, PVW, AUX
- 2 HDMI Outputs – Assignable to PGM, PVW, AUX
- 1 Multiview Outputs – Program, Preview, plus 8 video sources with Audio meters
- LAN – Remote control and Smart Tally
- RS-232 – Remote control
- USB Port – Still Image Upload, Saving Program Files

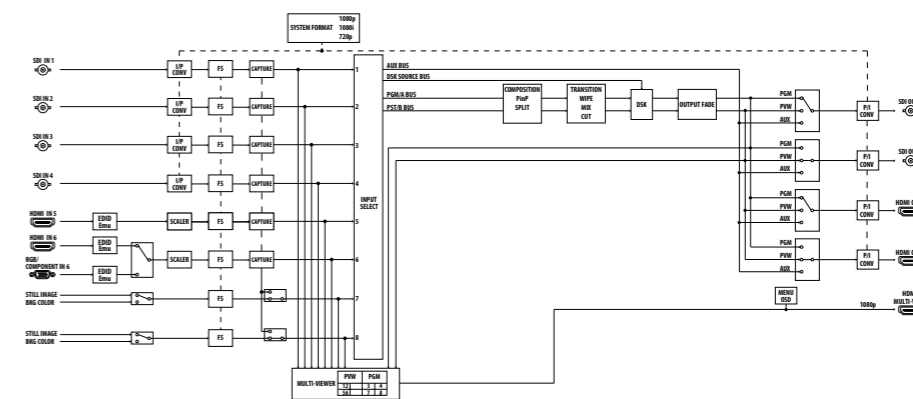


## BLOCK DIAGRAM

### AUDIO



### VIDEO



### Live Production

Corporate event production is the fastest growing live event space with companies hosting town halls, meetings, trainings, new product announcements, both in person and streaming.



### Education

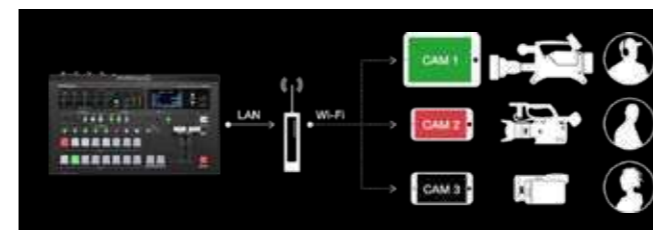
Video communication helps improve the effectiveness of education when used for streaming lectures, assemblies, distance learning, sports, live performances or theater productions.



### Church/Theater

The V-60HD is ideal for multiscreen environments usually found in churches, conference centers, hotels, and trade show facilities where different content needs to be switched to independent screens.

## Smart Tally



Roland's unique and proprietary wireless tally system uses a wireless LAN router connected to the V-60HD to send tally information to iOS or Android devices on the network.

## Remote Control

Extending the V-60HD's audio mixer with outboard USB control surfaces is an economical alternative to using a dedicated full-size audio mixer. USB MIDI control devices are instantly recognizable by Mac and Windows PCs including the V-60HD Remote Control Software. For a gaming-like experience, pick up a USB gamepad and command a team of PTZ cameras. Instincts will guide the way as cameras Pan, Tilt and Zoom effortlessly on the action.

## VIDEO

Cut, Mix with cross dissolve and NAM, FAM transitions. Use up to 30 different wipe patterns. Time based corrected and frame synched provides seamless transitions between 6 video sources and 2 still images instead of buses. Auto-Scan (Ver.2.0) enables to switch automatically to reduce operator work.

### Professional user interface

Professional broadcast cross point buttons with PGM/PST LED color indicators. Rugged T-Bar, DSK quick edit knobs for key level and gain. Two dedicated PinP and Split buttons with knobs for center framing of Split and PinP placement. Change transition type using either mix or two preset wipe buttons with dedicated transition dissolve time knob. Front panel 3-inch LCD display with quick access menu navigation to adjust switcher parameters.



### Video composition

The V-60HD includes a DSK (downstream keyer), Picture-in-Picture (PinP), Split composition effects ideal for creating news style broadcasts and corporate presentations. PinP window shapes include rectangle, circle, heart and diamond patterns to add a special touch to special events. Cropping of PinP and adjusting of SPLIT center portion (Ver.2.0) are suitable for composition of vertically long screen of smart phone.

## AUDIO

### Audio Mixer with preamp and dynamics

The V-60HDs' preamp and dynamics effects include a high-pass filter, gate, compressor, a 3-band EQ and delay. Anyone without audio knowledge can run sound thanks to the built-in effect's library packed with presets for common production scenarios including interviews, ambient sound recording and elimination of "pops" & wind noise.

### Auto mixing

The included Auto-Mixing function ensures the correct mix for multiple panel participants at conferences by automatically adjusting levels across multiple audio sources. A priority weighting assignment that is channel specific can be set giving the moderator or priority audio channel a higher volume level while using the Auto-Mixing function allowing the operator to focus on video switching and production.

### AUX bus

Live streams, HD recording, and confidence monitors often have different visual needs from the main program output. Switch any of the connected input sources to any of the four SDI or HDMI outputs without affecting the main PGM destination. AUX Linked PGM enables AUX output to synchronize with the Program (PGM) output.



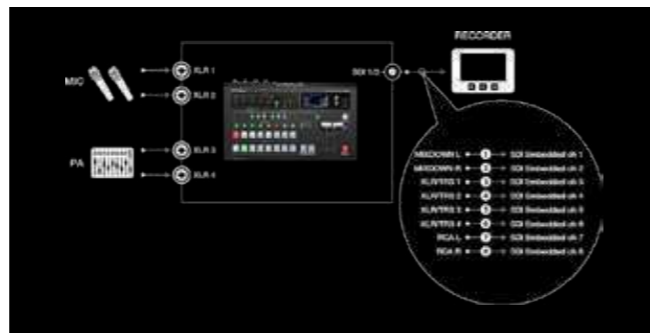
### Multi-view output

V-60HD can preview all six video inputs and two still images, PGM and PVW to a single preview monitor via the Multi-view output. In addition, you can display the menu on the Multi-view display, so you make setting changes without changing your focus from the preview display. From Ver.2.0, exchanging PGM and PVW window and editing label name of IN1 to 6 are possible.



### Discrete Multi-Channel Audio Embedding

Assign up to eight analog audio inputs a separate audio embed channel on SDI 1 and 2 outputs, for a separate mix pre-effect (dry) or post-effect (wet) for correcting audio problems post live event.



## V-60HD SYSTEM PROGRAM VER.2.5

The Ver.2.5 update supports JVC, Panasonic PTZ and Canon camcorder control, audio effect preset, adds PNG still image format, improves User interface, and more.



SDI Camera



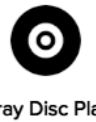
HDMI Camera



PC / Mac



Smartphone / Tablet



Blu-ray Disc Player

## SPECIFICATIONS V-60HD

VIDEO	
Processing	4:2:2 (Y/Pb/Pr), 8-bit
Input Connectors	SDI IN 1-4: BNC type x 4 * Conforms to SMPTE 424M (SMPTE 425M-AB), 292M HDMI IN 5-6: HDMI type A x 2 * HDCP Supported * Multi-format Supported RGB/COMPONENT IN 6: HD DB-15 type x 1 * INPUT 6: HDMI or RGB/COMPONENT selected. * Multi-format Supported
Output Connectors	SDI OUT 1-2: BNC type x 2 * Conforms to SMPTE 424M (SMPTE 425M-AB), 292M HDMI OUT 1-2: HDMI type A x 2 HDMI MULTI-VIEW: HDMI type A x 1 * HDCP Supported
Input formats	SDI IN 1-4: Conforms to SMPTE 296M, SMPTE 274M 720/59.94p, 720/50p SMPTE 296M(FORMAT switch = 720p) 1080/59.94i, 1080/50i, 1080/59.94p, 1080/50p SMPTE 274M(FORMAT switch = 1080i or 1080p) * The input interlaced video signal is converted to progressive video signal by internal processing. * The video signal frame rate can be selected at the SYSTEM menu (59.94 or 50). HDMI IN 5: HDMI/RGB/COMPONENT IN 6: 480/59.94i, 576/50i, 480/59.94p, 576/50p, 720/59.94p, 720/50p, 1080/59.94i, 1080/50i, 1080/59.94p, 1080/50p, VGA (640 x 480/60 Hz), SVGA (800 x 600/60 Hz), XGA (1024 x 768/60 Hz) WXGA (1280 x 768/60 Hz), SXGA (1280 x 1024/60 Hz), FWXGA (1366 x 768/60 Hz), UXGA (1600 x 1200/60 Hz), WUXGA (1920 x 1200/60 Hz) * The refresh rate is the maximum value of each resolution. * Conforms to CEA-861-E/VESA DMT Version 1.0 Revision 11. * 1920 x 1200/60 Hz: Reduced blanking * The input interlaced video signal is converted to progressive video signal by internal processing. * The video signal frame rate can be selected at the SYSTEM menu (59.94 or 50).
Still Image	Windows / Mac OS bitmap (bmp), PNG (It cannot support alpha) * Maximum 1920 x 1080 pixels, 24-bit color, uncompressed. * It can be stored up to 2 files in the internal memory.
Output formats	SDI OUT 1-2: Conforms to SMPTE 296M, 274M HDMI OUT 1-2: 720/59.94p, 720/50p (SYSTEM FORMAT = 720p) 1080/59.94i, 1080/50i (SYSTEM FORMAT = 1080i) 1080/59.94p, 1080/50p (SYSTEM FORMAT = 1080p) * The video signal frame rate can be selected at the SYSTEM menu (59.94 or 50).
HDMI MULTI-VIEW	1080/59.94p, 1080/50p

(0dBu=0,775Vrms)

AUDIO	
Audio Processing	Sampling rate: 24 bits/48 kHz
Audio formats	SDI IN: Linear PCM, 24 bits/48 kHz, 2ch (Conforms to SMPTE 299M) SDI OUT: Linear PCM, 24 bits/48 kHz, 8ch (Conforms to SMPTE 299M) HDMI IN/OUT: Linear PCM, 24 bits/48 kHz, 2ch
Input Connectors	Digital: SDI IN 1-4: BNC type x 4, HDMI IN 5-6 (HDMI Type A 19 pins) x 2 Analog: AUDIO IN 1-4: Combo type (XLR, 1/4-inch TRS phone), phantom power AUDIO IN 5-6: RCA phono type
Phantom Power	DC 48 V (unloaded maximum), 10 mA (maximum load) * Current value per channel
Output Connectors	Digital: SDI OUT 1-2: BNC type x 2 HDMI OUT 1-2: HDMI type A x 2, HDMI MULTI-VIEW: HDMI type A x 1 Analog: AUDIO OUT: XLR type AUDIO OUT: RCA phono type PHONES: Stereo 1/4-inch phone type
Input Level	AUDIO IN 1-4: -60--+4 dBu (Maximum: +22 dBu) AUDIO IN 5-6: -10 dBu (Maximum: +8 dBu)
Input Impedance	AUDIO IN 1-4: 10 k ohms (HEAD AMP GAIN 0--23 dB), 5 k ohms (HEAD AMP GAIN 24--+64 dBu) AUDIO IN 5-6: 15 k ohms
Output Level	AUDIO OUT (XLR): +4 dBu (Maximum: +22 dBu) AUDIO OUT (RCA): -10 dBu (Maximum: +8 dBu) PHONES: 92 mW + 92 mW (32 ohms)
Output Impedance	AUDIO OUT (XLR): 600 ohms AUDIO OUT (RCA): 1 k ohm PHONES: 10 ohms
Audio Effects	Auto Mixing, EQ, Delay, Compressor, HPF, Gate, Multi-Band Compressor, Limiter
OTHERS	
Other Connectors	USB: USB A type (for USB memory) TALLY/GPI: DB-25 type (Female)(Tally: 12, GPI: 8) RS-232: DB-9 type (Male) *for Remote Control LAN: RJ45 100BASE-TX *for Remote Control
Other Functions	MEMORY (8 types), Panel lock function, EDID Emulator, EDID Emulator
Display	Graphic LCD: 128 x 64 dots
Power Supply	AC Adaptor
Current Draw	3.1 A
Power Consumption	37.0 W
Operating Temp.	+0 to +40 degrees Celsius, +32 to +104 degrees Fahrenheit
Dimensions	356 (W) x 221 (D) x 96 (H) mm, 14-1/16 (W) x 8-3/4 (D) x 3-13/16 (H) inches
Weight (excl. AC adapt)	3.0 kg, 6 lbs 10 oz
Accessories	Owner's Manual, AC adaptor, Power cord